DOWRIES FOR DAUGHTERS DISCUSSED BY MOTHERS.

Wives of Senators and Members of the Cabinet Differ on This Important Social Topic.

HOW A BELGIAN COUNT COT A BIG INCOME FOR LIFE.

Mrs. Wanamaker, Mrs. Nobie, Mrs. Senator Sherman, Mrs. Carlisle and Mrs. Mc-Pherson on the Advantages and Dangers of "Dots."



WARHINGTON, Feb. 21, 1891. HOULD American girls have dowries? Should we settle a portion upon our daughters at marriage? These questions I have asked of some of our most noted society ladies during the past week, and I find their answers interesting in the extreme. I first called upon Mrs. Senator John Sherman. She

"I am in favor of dowries for our daughters, though I do not think the matter should be a compulsory one, as it is in France. I believe, however, that both husband and wife are all the happier from the possession of means of their own, and every parent who values his daughter's best happiness will not hesitate to endow her upon the event of her marriage. I have often expressed this sentiment in our family, and I believe that no father, should be possess sufficient means, is justified in placing his child in a position where she will be entirely dependent upon the whims of another. It is a wise regulation of the French government to provide by the settlement of a marriage portion for the permanent support of the wife, so that she can never be left in want, no matter how improvident the husband may be. HOW THE COUNT GOT \$10,000 A YEAR,

"Nevertheless, I know," continued Mrs. Sher-man, "of any number of instances in which the system has proved rather disastrous. You may probably have heard of the marriage of Miss Gordon, of Cleveland, Ohio, to Count Vilain, of Belgium. The affair created quite a sensation at the time, as Miss Gordon was a beautiful girl and the only child of a millionnaire, who was violently op-posed to his daughter wedding a foreigner. The parents opposed the match for a while and made every effort to draw their child out of the way of temptation. The lover, however, was not to be tnwarted, and whon the affair became unavoidable the parents determined to make the best of it. A meeting was arranged with the lover for the purpose of signing the settlements, and when the preliminaries were being discussed the amount of the 'dot' became a subject of considerable controversy. At length the father asked what money the Count's family intended to bestow upon him. This question rather staggered the young man, who hastened to explain that no such custom prevailed in his country, so far as the husband was con-

"'Very well, then,' added Mr. Gordon, 'unless you can show an equal amount, either in money or lands, you cannot have my daughter.'

After considerable cabling and much discussion the question was finally settled by the consent of the Count's father to transfer to his son property walued at \$100,000. Not until then would the millionnaire agree to the demand, and he immedimillionnaire agree to the demand, and he immediately settled a life interest upon the young couple of \$10,000 a year, ten per cent of the amount cenferred upon the groom. Three years afterward the wife died, and to-day the widower continues to receive the annual allowance agreed upon from his father-in-law, notwithstanding the fact of his second marriage. I might quote other instances of a similar character, "hirs. Sherman went on, "but they would all ge to prove that foreigners seldom overlook the all important 'dot' in a question of marriage with an American girl, no matter how fondly they may love the woman, and the subject is worthy of more serious consideration among fondly they may love the woman, and the same of the worthy of more serious consideration among those who have their children's lasting happiness it to learn a lesson or a principle from mean those who have their children's lasting happiness it to learn a lesson or a principle from mean those who have their children's lasting happiness it is consider.

those who have their children's lasting happiness to consider.

SHE LOVED ANOTHER.

"You are doubtless familiar," continued Mrs. Shorman, "with Lucy Hooper's advice to her countrywomen? In one of her letters written from abroad after her marriage she thus forcibly puts the case:—My dear young American eisters, if you must have a pet purchase a spiniel, but never buy a French Count. Miss Hooper's father, as Consul at Paris, had many curious experiences brought to his notice in his official capacity, not the least original of which was the case of a young wife whose fancy had been enthralled, like many snother American girl's, by the glitter of a title. One day while seated at his deak he was interrupted by the entrance of a lady, who feetingly explained that her husband, a Frenchman, had informed her that by the laws of France, which require the presence of the resident foreign Minister or at least the Consul at the ceremony to insure the legality of the contract, their marriage did not hold good in his own country, and that in consequence of the absence of such a representative at the church she could no longer claim his allegiance as a husband. Sympathizing with the woman in her trying and questionable position Mr. Hooper very gently explained that unfortunately there did exist such a law and that he was powerless to help her. To his astonishment his visitor delighted with a such as wand that he was powerless to help her. The his astonishment his visitor delighted weeksimed:—Then it is all true, as he said, and I am free to marry whom I choose. I am so glad, for there is another whom I love very dearly!"

MRS. POSTMASTER GENERAL WAMAMAKER.

Mrs. Wanamaker, wife of our Postmaster Gen.

so glad, for there is another whom I love very dearly!"

MES. POSTMASTER GENERAL WANAMAKER.

Mrs. Wanamaker, wife of our Postmaster General, is a woman of culture and rare common sense, and having spent several years in foreign travel is fitted to express intelligent views on this subject. I called upon her one morning not long since, and found her luxuriously ensecuced in her presty boudoir in the midst of her regular daily work of correspondence. She was answering dozens of private notes and letters of charitable appeals. She said:

"I think that the question of bestowing a 'dot' or wedding portion should be entirely optional, not compulsory as it is abroad. Such arrangements are in many instances productive of much evil and of considerable financial embarrassment. As an illustration of this I recall the case of a wealthy Frenchman whe had three wedded daughters, upon each of whom he had bestowed a 'dot' far in excess of his private means. Two of his soms-in-law have been taken into partnership with him and in consequence he had impoverished himself, when otherwise he would have been rich in this world's goods. Many American girls possess independent means, and their future is provided for without additional

thereby place her in a position of comparative doped and the production of the product

wedded life. Even the most generous of husbands often overlook the smaller needs of a household that form so important a factor in the general comfort and happiness, and very few women eare to be constantly making petty demands upon their husbands, preferring more often to go without a necessity rather than annoy a man by little importunities of this kind, until at length a lack of mutual confidence engenders misunderstandings that prove the beginning of serious estrangements. It is the same thing over again as that brought out in the allowance system, and if the wife possesses independent means the wheels of demastic machinery run smoothly forward without jar or hindrance. By all means give your daughters a wedding portion should your fortune permit, and do not thrust her from the parental nest usupplied with necessary protection from future want."

Want."

Mrs. McPherson, wife of the Senator from New Jersey, has spent much of her life in foreign travel, and probably there are few corners of the world which, at one time or another, she has not visited. A woman of keen intelligence and considerable literary taste, she has made a careful study of the various customs and national peculiarities. I asked her whether she approved of the giving of dowries.

erary taste, she has made a careful study of the various customs and national peculiarities. I asked her whether she approved of the giving of dowries.

"I do, most emphatically," she answered. "For the sake of a woman's individual happiness, if for no other reason, it is a wise provision, and I believe that every parent who has his child's best welfare at heart would not neglect so important a duty. I mean, of course, in case he can afford to do so. Abroad the custom is universally observed, and a foreigner seldom if ever seeks an American wife from among those less biessed by fortune. The recent marriage of Miss Audeureid and Count Devoune, of France, is yet another instance of title allying with solid american gold. Every one, of course, known that the Count was head over ears in love with his bride, but the main chance was not ovariooked and the dowry was satisfactorily settled in compliance with the French law before the contract was seaded at the altar. The amount of Miss Audenreid's income is variously estimated from four to eight thousand dollars, to which her mother has added a "dot" of several thousand more out of her handsome fortune that will in all probability revert eventually to her daughter."

Mrs. Senaton welcott condemns downed the opposite view. Mrs. Wolcott went on to explain that she considered domestic happiness better secured by total dependence on the part of the wife. She said:

"In every male breast thore lives a spark of latent chivalry that is sure to be called forth by the demand upon his rightful sovereignty over those who are dependent upon his strength, just as the vory dependency of an infant claims our natural love and care. We Americans are far too apt to indulge in a habit of limitating foreign customs instead of preserving that boasted independence so hardly won by our forefathers, and the worst of it is that we by no means adopt the best of them. We usually follow some foolish brief fancy originating in distant lands by a class of people possessing totally opposite requirem

law of dowry giving, live very happily to all appearances, but the truth is that the women of other countries expect less from their nusbands than we Americans enjoy. One thing, however, I have noticed among foreigners is that the wife of a Frenchman is far more respected in the light of counsellor to her husband than with us, and is consulted upon every and any emergency, whather of public or private demands, and the wisdom of her advice generally followed. The trouble with us lies in the face that we have developed into such a money getting, money loving race that in following the practical we lose the joy of the ideal, and the sweet romance of love is destroyed in the effort." "Do you not think that much depends upon the character of the man whether or not such total dependence results in happiness?"

"Of course," replied hirs. Wolcott, "where a man is a tyrant by nature no domestic congeniality or wedded joy can be expected under any consideration; but every true man will guard his wife from a feeling of devendence and treat her with consideration, whether she possess private means or come to him empty handed. By all means let us avoid the adoption of any custom, but preserve our individuality as a nation and let circumstances guide our action in this question, as in every other event of life."

MRS. VICE PRESIDENT MORTON.

guide our action in this question, as in every other event of life."

Mis. Vice pulsiblem moreon.

Mrs. Morton preferred to express no decided views in reference to publicly discussed questions without more time for their sorious consideration than my present demand would permit, yet she added that she did not realize the necessity for the introduction of any such marriage settlement in this country as prevails abroad.

"Come and see me in a few years when my daughters are old enough to seriously force the consideration upon me and I will be better prepared to answer you," she said, and turned the conversation with her natural tact. I regretted her decision all the more, coming from a woman whose sound common sense would bear all the more forcibly upon our topic.

MANNERS AND MORALS.

UNMANNEBLY SHOPPERS AND COMMON LAW BEM-EDY OF VICTIMS.

Manners betray morals. If there is truth in this aphorism, which has been believed in for centuries in some shape or other, it does not speak well for the Re-

public.
It is curious how people go through life jutting against its tragedies, jostled by its ill-breeding, yet never remembering any of these things long enough

house, furniture, clothes and turn out generally as good as their neighbors, they are satisfied. They don't mind how many times they slip on ice if their bones don't break-their neighbors' bones are no matter. They don't seem to care if they are robbed and swindled moderately at every turn if enough is left

to pay taxes and keep a tolerably smart appearance.
They are bumped, elbowed and crowded every day, and every day they are ready to be bumped, elbowed and crowded again, as long as they can stand it. Their

and every day they are ready to be bumped, elbowed and crowded again, as long as they can stand it. Their time is stolen, their health impaired, their substance wasted, but if they have to eat, drink and be merry, waste and loss are not worth counting.

They are the well-to-do or tolerably-to-do middle class, the gigmanity of the species, a name which fits too well ever to be shed till the last trace of what it qualifies is cast aside. They are the people who understand with their elbows, I think, Mr. Kipling says. I can't quote correctly, for one of the bread has borrowed my magazins and probably will bring it back next fall, if he happens to think of it.

That class of people never do return books promptly. Very few people have any morals about books anyhow from copyright to borrowing.

FROPLE WHO CANNOT CHEAT.

But those who are very so little less rawboned and have not the strength of the starnivora, or the penny getting proclivities of corner shopkeepers, how is it with them in this josting world? The pence filehed from them at every turn swell to shillings, dollars and handreds, and they cannot agreeze other pennies in turn out of somebody else to make the loss good, for bread has no savor, fire no warmth and light no cheerfulness for them, estraed by defrauding even of a penny.

There are such people left in the world. Perhaps that is why the sun shines and the oceans washing over it gazin. You may be doubtful, but there are people whom neither pence, dollars nor fortunes attract unless they are cleanly come by.

I know of one each the other day. There was a chance of a partnership for sale of a manufactured article which a sharp young business mn saw a fortune in. He wanted to manage the buying and sell-ing while the older man attended to marking the article. But the young man wanted to put "new blood" into the concern, and the first improvement was to put the price up double. Other thugs of the same kind were selling everythere for the high price, and as an improvement in working would reduce the cost

That was no way no primes of it in this. He would advertise abowity, make a "boom" of the thing and stoop in the dollars. But practice leads to bad language.

But the maintacturer opposed. He made a respectable profit on his wars as it was, and he could not feel it right to charge three prices for it, if every-body else gld. The younger man argued angelly, contemptationally, the agreement fell through, the youngman dashed off to the city to embark on some financial scheme worthy of his talouts, for he remarked he detested a small business. The older took up his burden disappointed, but with a steady heart.

What did it matter to him if others were getting five times the worth of their goods, rolling up fortunes, and setting up chartitles to keep things even with their consciences. His would be clear from the beginning. Every dollar that he took he could feel that he luck honestly earned without overreaching or taking unnecessary dollars out of somebody else's pocket. And by his way of doing business there would be little used of charities.

PINCHERCK CHARITIES,

Probably he will never build a club house for working neople, but undoubtedly their own homes will be pleasanter for the dollars which they have been allowed to keep to themselvos.

You all know the great chocolate works near Roston, whose brown cakes are in domaind wherever chocolate cake is known, a firm whose manager casually remarks that "we sent out \$45,000 less advertising last year than usual," and orders his printing by the million instead of the thousand like you and me.

All which counts for nething, as plenty of firms match this business, but the founder of the works left in his will a clauss that no man should ever be employed in the manufactory at less than \$2 a day, and char tolle is strictly kept. It is easy to employ such help as it wanted for \$7 and \$8 a week, all that other factories are paying, but no man goes on the pay roll of that establishment at less than \$2. Needless to say it has the best hands, and they carn their moner. No cl

that no tired workman need want to leave for comfort or cheer. Do you suppose he enloys his twelve fest of kennel any better when he goes back to it from your palaces? Such manby pamby projects will do to anuse the leisure of ladies and gentlemen who understand the needs of the class they profess to benefit and know cractly as much about them as they do about the plumbing of their own houses and are as well qualified to remedy its evils. They will have the waterback hlow up on their hands some day while they are tinkering about it, and loarn the prudence of leaving it to wiser hands beed to the business.

As for the plumbinesque club houses and loging houses which are pointed out in maanfacturing villages of New England and the interior, I never see them without a wish to examine the accounts of the establishment which is able to afford such showy benefactious, and see how many invalids have falled and died in unwholesome tenements; how many families crowded along on \$8 a week to the wage carner; how many improvements by clever employes were selzed or bought for a few dollars to earn thousands for the owners; how many contracts with smaller firms were shuffled out of or broken because the weak could not help themselves, before this tardy tithe was paid to still conscience and cheat the devil.

Do you suppose he will be satisfied with ten cents on the dollar?

GOSFEL OF MANNERS.

But do not suppose I mean to treat you to a dia-

down to date. But no one can observe our people in public without wishing for a Savonarola to preach to them the gospel of good manners, which are only morals in fine type. My attention has been especially caught by some brutalities in the last two years which demand extirpation.

Have you ever waited by the swing doors of large shops and galleries without wondering that more people do not get their brains knocked out by the carelesaness of those passing through? This has been spoken of in print before, but it needs more than rebuke. It is growing to be a menuce to life and calling for stringent laws to enforce better manners upon our women, who are the offenders in the case. There is no use saying accidents may happen. Accidents do happen, but as no legal redress is provided, appearently, the sufferers are taken home, the matter tushed up and things go on as before. Women sail through in a hurry, let the door ity from their hands without booking to see who is behind, and march off without a thought or care for the damage done. These doors weigh little less than a hundred weight apiece. They get a good swing of five or six feet as woman number one passes out, and their recoil has force enough to break the nose or skull of the person following if she is not expert in dodging and catching the door in its return.

WHO TARES THE HINDMOST?

But I will tell you what I have seen within a few months. Early last October passing in a throng out of one of the largest Boston shops a tall woman well dressed *came sweeping along, went through the door with a rush and let it fly back some four feet at least with full swing.

A woman just closing the other leaf of the door with her hand checking it, was not able to get out of the way quick enough, and her hand was caught between the two heavy doors and almost crushed; the blood started in her giove, the firger lone was nearly broken. She turned white with pain and almost fainted, the greundler in front marching away without a giance to see what became of any one behind. Do

guilty of wanton injury for which she is justly responsible.

Your common law mement. By common law any one is responsible under penalties for injury to life or limb resulcing from carelessness, whether explicitly prohibited by special statute or not. It is a pity that every one who gets hurt this way would not follow the case up and make an example of the offender.

No lady will go through a swing door leaving it to knock the next person down or break the bridge of her nose or send her to the point of fainting with the blood spurting from her finger tips or an elbow knocked crazy. The woman who salis through a swing door leaving it to fly back in the faces of those behind her marks her own low caste and after want of breeding.

There is material you may spend a lifetime over and never leave a trace of training. That women have to be reminded on such a point is very poor tribute to their minds or manners.

The superintendent at the depot referred to when told of the accident regretice is as an outrage, but added that he could not see what the company could do to prevent it, as it was not its part to trach the public good manners.

It is not a mere question of manners, but of safety, and any company or merchant should take the same care to prevent it as to ward off accidents by elevators or enforce neatness in the watting rooms, and what is more give the depot police charge on the subject to reprimand any person violating the public safety via swing doors.

One would havily think that this enlightened and well instructed generation would fall in consideration of infirm people if only from self-respect and to show its fine manners. But one must be crippled and carry a cuttch to know what sordid want of consideration good—1, e., well dressed, well educated—society can show. Common people as a rule are most considerate of cripples or invalida, and it is really touching to see the thoughtfulness they will show, in carrying parcels, beiging one across crowded sixects or giving up places in a car.

WELL DRESSED IMAGES.

But it was in one of the "society" cars, full of well looking people, at dusk one winter evening. A woman came in slowly and painfully learning on a crutch and stood all the way to be destination, half a mile perings, while not one of those intalligent people offered her a seat. Every lurch of the car nearly threw her from her balance, she could hardly get out of the way of people crowding in and out without being thrown down, but still those hundsome graven images sat without winking toward giving her a place.

The conductor was moved out of his good manners to say pretty londly that he thought some of those people might give her a seat, but nobody did—not the stoot, comfortable gentleman sitting by his wife, nor the student-like young man, nor the young gentleman with his sister and coasin. Being one of the strap clingers I had no seat to yield, but I hald the seene up for name thing in the strong a la

FASHION PREPARING FOR SPRING CONQUESTS.

Series of Becoming Dresses for Theatre, Ball, Home and Street Wear.

NEW MATERIALS FOR SPRING

Blue Steel Still in Favor and Gauze Hoods the Latest Novelty.

Those fascinating little capuchons of gauze and lace are the newest device for evening wear. It is a comfort to have some dainty headgear which is warm, light and does not disarrange the elaborate confure; and the problem is solved by these voluminous hoods of gauze and lace, with an inner bood of soft silk, which rests lightly on the hatr.

The chief charm, it must be confessed, is their be comingness, for the very plainest face is attractive emerging from a cloud of delicately tinted gauze, which around the head and throat.

I was shown in a large shop in the Rue de la Paix a number of these gauze hoods and was assured that they are the latest novelty. The prettlest ones were made of two gauzes, pink and blue, blue and pale yel low, and yellow and white, over a foundation of silk. One or two had the silver nail heads, now so popular, dotted over the gauze to give more effect.

The gauze is draped loosely over the full silk hood,

and ends with a long fichu, which is thrown around the neck and is caught by rosettes of gauze or bows of ribbons. One capuchon had a quaint effect of lace ear tippets, a straight band of white lace coming smoothly down at each side of the face. Fine white lace over a colored foundation, with an immense fichu lace over a colored foundation, with an immense fichu of lace, is used in the same way, but nothing is so completely "fetching" as the gauze arrangements. Veivet hoods are also worn in the evenings, and are made very large, and are often lined with smocked sills, which is light and elastic.

The "American hood," as it is called in London, is a Quaker cap, with a wide pleating turned back from the face, and finished with a bow at the top. Its quaintness is its chief quality.

The garments in which there is more change and novelty at this dead season are the cloaks and manteaux. There is little strikingly new in dresses, but the new Henri II, capes are furnishing a field for the dressmakers' taste.

teaux. There is little strikingly new in dieseses, but the new Heart II. capes are furnishing a field for the dressmakers' taste.

By the way, we are to have the well known Medici collar with us in all the spring parments. It is too good a friend and hides too many defects to be soon abandoned. It will be adapted and changed in the various new styles, but it promises to be there still.

New materials are already prepared for the spring and early summer. I saw last week a pile of founded and early summer. I saw last week a pile of founded and early summer. I saw last week a pile of founded early summer. I saw last week a pile of founded early summer. I saw last week a pile of founded early summer. I saw last need to send to American dressmakers for early orders.

Black grounds with colored polka dots are to be as much worn next season as last, and curious large hoops and rings were among the new patterns which were jealously concessed. Black lace, with the bouquet patterns wrought in colored silks, are also among the new designs which are on their way to New York.

SOME NEW CREATIONS.

which are on their way to New York, some New CREATIONS.



THE CAPUCHON FOR EVENING.

and skirt in one piece, with no trimming on the skirt but a narrow depassant of gold headed with a jet line. The top of the bodies is of cloth of gold brocaded with blue, similar to the material in a previously mentioned coetume. The under armplece also is removed and replaced by cloth of gold, and is outlined with a row of jet cabochous and embrodiery. The sleaves of the blue cloth are studded with large jet cabochous, and on the shoulders and at the point of the yoke fall deep tassels and strings of jet. The combinations of gold and jet with gold are extremely pretty. In the back of this costume is another original idea.

The bodies is fastened in the back, and the fastening is concealed with a row of jet cabochous placed closely together. The two long seams at the sides commencing at the yoke are concealed by a line of jet, and the soulce makes a point in the back and is outlined in the same manner.

ing at his your are concentrated.

Industrial to be maked and is outlined in the same manner.

Industrial Holds Its own.

Blue steel is to be much worn, and is creeping in upon hats in the form of large wings and butterflies which catch brilliant blue lights, and upon lace in spangles and embroideries. The combination with black is superb.

A new material, looking precisely like the horizontal striped waistoat of the butler or "buttons," is just exposed at a prominent contartere's. The green or blue foundation is striped across with very narrow yellow bands, raised above the surface like felt.

It is to be used in making clouks and paletots, but I can already see it employed for waistecast to smart spring jackets. If we imitate the cocher's cape, the sportsman's pink cost and our brothers' shirts, why should we not wear a dashing little waistecast of green and yellow stripes like the "potit groom?"

A VISITING TOLLETTE.

One of the prettiest visiting tollettes which we have seen for some time past is of dran current yellow.

One of the prettiest visiting tollettes which we have seen for some time past is of drap cuir and velvet



HAT FOR YOUNG GIRL.

cordone. The corsage is of velvet with full basques drawn in to the figure. The fronts are of plush cut out over cloth and drawn back to the corsage of velvet by seams of the arm and shoulders. The sleeves high and of velvet. A high collar of cloth and a low collar of velvet with a cravat of velvet. The capote fermed by a crown of roses of velvet, and behind a bunch of feathers. The strings of black velvet.

A cray dress is made of gray-blue cloth, with black embroideries. The corsage with long busques of the same cloth, and held close to the figure with a buckle of black iet. The front embroidered at the top. A high collar. High sleeves with inset of embroidery. A felt hat, with a breadth of soid embroidery. A felt hat, with a breadth of soid embroidery and with velvet of the same shade. A princesse dress, the back forming the foliases for the back of the skirt. The side of the back and front with invisible closings and darts of the bosom, and dart marking the side of the front. The bottom of the dress cut out wainut shaped with the exception of the back, which is over a false skirt of velvet, over which is a pointed plent, and an embroidery ornamented with wainuts. The sleeves draped and drawn in by a silver buckle over a sleeve top ornamented with embroideries. Patterns of embroidery at the back and front. A high collar of cloth, with slight overflow trimming of astrakhan. A felt hat with bein broken at the back and trimmed with ribbons and feathers.

Just now, as ever, ball dresses occupy the mind of

every lady, and more than ever change from day to day. What you had yesterday in the way of a ball dress won't do to-norrow, and the general foature is that simplicity is the order of the day; but there is potaling, is vecknow full well, so expensive as well dressed simplicity. A very charming ball dress for a young girl is of incoile tuile embroidered with silk. A full consege, held in by bands of incoile relvet, closed at the side by hows. The skirt with accorden pleats, and darts of incoile velvet, fringed with a rich gold hanging at the bottom.

HOME MADE CAMERAS.

FACILITIES FOR AMBITIOUS AMATEUR PHOTOG-BAPHERS MADE POSSIBLE BY THE DRY PLATE. Since the advent of the dry plate, which made it possible for any one with a little practice and a fair apparatus to make a good picture, the interest in it has rapidly increased until now cameras are almost as plenty as flies in summer time. Probably many of the young readers of this paper already possess an outfit and have made many pictures, but there are doubtless also many who have not yet been initiated into the mysteries of the fascinating art.

A camera can easily be made at home at a very small expense, and a knowledge of how to make one will enable many to enter the ranks of the amateurs who would otherwise have to stay out-

BEDUCED TO LOWEST TERMS. The principle of photography is, to express it plainly, as follows:-A glass plate is coated with a preparation of gelatine in which are mixed compounds of silver salts and other chemicals, so that when it is exposed to the light the plate is acted on by it. If the plate is exposed to the light for an ton built the York and Jersey paddle boats for

FROM NORTH RIVER FERRIES

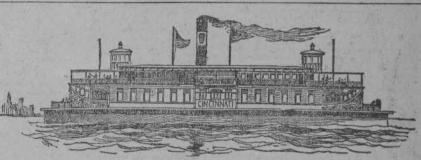
Complete Triumph at Last of the Double Ended Propeller.

ALL FERRIES CATCHING ON.

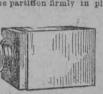
Evolution of the Screw Ferryboat Idea and a Specimen Masterpiece.

Four screw ferryboats, of what is now the thorough modern type, are being built for use on the North River. Two others similar in design are projected, and the six will be the most perfect craft of their kind in the world.

Their construction marks a distinct era in the history of river navigation. It is the first step in what will probably be a general substitution of fore and aft screws for the old style paddle wheels, The first screw forrybeat was built by John Stevens, of Hoboken, at the same time that Ful-



instant and then is flooded with another mixture of chemicals called the "developer" it will rapidly turn black. Now if the plate is shut up in a dark box and the only light that is allowed to touch it comes through a lens which throws an image of the object pointed at on the plate it is plain to see that some parts of it will be more affected than others, so that in "developing" the plate, as it is called, some parts will be almost clear glass and some will almost, if not quite, be black. This is the way the negative is made and is the principle on which all cameras are formed, somplicated or simple.



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if one is not acquainted with chotography at all, one of the many handbooks on the subject should be precured before attempting to use the camera so as to know how to handle the piates and develop them.

SUBSTITUTE LENSES,

When an opera glass lens cannot be procured some substitute must be obtained. A very good picture can be made with an ordinary spectacle glass for a lens. Any boy can obtain one of these, so the camera is within the reach of all. For convenience, one of short focus should be used, a two convenience, one of short focus should be used, a two cores and the reach of all. For convenience, one of short focus should be used, a two cores and patients of a dollar. The camera should be made exactly as for the opera glass iens, only the spectacle glass should be fastened over the hole in the partition E. Fig. 3 shows a good way to fasten it in place by sticking slips of paper across the ends.

If the glass will not make a picture the full size of the plate, the size of the circle being governed by the size of the picture that appears clear on the ground glass when placed across the ends.

If the glass will not make a picture that appears clear on the ground glass when placed across the ends. The result is a circular picture in the centre of the plate, the size of the circle being governed by the size of the circle bein

the Jersey City ferry. Both types were experi-ments. Fulton's boat seemed best adapted to river service, and the paddles have been in use ever since.

Forty years ago Edwin A. Stevens revived the old idea in the interest of the Hoboken ferries, but gave it up eventually. Edwin Brady, of New York, patented a screw boat in 1867 and built two 900 ton vessels, but their only subsequent use seems

patented a screw boat in 1867 and built two 200 ton vessels, but their only subsequent use seems to have been as agitating dredges at the mouth of the Mississippi.

EVOLUTION OF THE SCREW FERENBOAT.

But of late years the engineers of the great local ferries gradually came to the conclusion that the screw boat deserved another trial. They talked of it for ten years, each rather unwilling to make the experiment. Bather naturally it fell to another Stevens to take the lead. Colonel Stevens and Superintendent Woolsey, of the Hoboken Ferry Company, conferred for a year or so on different plans for a new screw boat, and two years ago the Bergen was launched. After a few trips on the Barolay street ferry the new boat was sent back to Newburg and almost rebuilt in details suggested by her short experience. Ferry men everywhere set the new venture down as a failure and sympathized with the afflicted company, but the Bergen came back ready for another trial and is a complete success.

This settled all doubt of the availability of the new idea and the innovation is generally accepted. The Hoboken company was the first to take advantage of its own demonstration. Two new boats, with vory little variation from the plans of the Bergen, are being built at Newburg. They will be the Hoboken and Castle Point.

The Pennsylvania Railroad is building a double decked screw boat at Elizabethport to be called the Cincinnati, it will be the handsomest ferry boat in the world. Its counterpart, soon to be built, will be the St. Louis. The fourth new boat is the John McCullough, now building in Philadelphia for the Eric Bailroad's Chambers street ferry. A second boat for this ferry, yet without a name, is also to be built.

The new type of boat is well illustrated in the Bergen. Compared with the Orange, the latest type of the paddle point, the points of the Bergen are as follows:—

Bergen Crange, 200 2011

Bergen Compared with the Orange, the latest type of the paddle point, the points of the Bergen are as follows:—

In the course of experiments to determine the relative speed and economy of the two boats these comparisons were added:—

as those of the Borgen. The hulls are building in Newburg and will soon be launched.

BOUBLE DEKERM PROPELLEM.

The new Fennsylvania boat is being built at the yards of S. L. Moore's Sous, Elizabethport. This boat will be the first of the perfected type of double decked boats to be launched, and is accordingly doubly interesting. Frank Turner, of Philadelphia, is the designer. The construction is under the supervision of Superintendent Heyward, of the company's motive power department. Some sleven years ago Mr. Heyward advocated the introduction of the screw, but was unable to put his idea into practice. Since the success of the Bergen he has been more successful.

Dimensions of the Cincinnati will be:—Length over all, 216 feet; beam 46 feet; beam over guards, 65 feet; draught, lo feet; depth of hold from deck, 17 feet. The hull will be of iron 5-18ths of an inch in thickness. The deck and cross girders will also be of iron, and an iron bulkhead will run the entire length of the hull. And the peculiarity will be encased the furnace, boiler and engine rooms, dynamos and all of the machinery. The Cincinnati will the head of the propelling power.

The Williamson steam steering gear will be used. Of the paddle boats of the company now in use three or four will be sent away for service elsewhere. The older boats will be sent away for service elsewhere. The coats will be sent away for service elsewhere. The case will be sent away for service elsewhere. The new plans.